



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/852,681      | 05/11/2001  | Ryo Ono              | 0229-0642P          | 4832             |

2292 7590 10/28/2003

BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

|          |
|----------|
| EXAMINER |
|----------|

VARGOT, MATHIEU D

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1732

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/852,681

Applicant(s)

ONO

Examiner

M. VARGOT

Group Art Unit

1732

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-12 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-12 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some\* ☐ None of the:
  - ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 3
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit: 1732

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-7 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by

Kobayashi (see col. 2, lines 18-32).

Kobayashi discloses the instant process of molding and curing an elastomeric tire in a mold by first heating using steam at a pressure of 14 kg/cm<sup>2</sup>, pressurizing with an inert gas at a higher pressure (20 kg/cm<sup>2</sup>) and repeating the heating and pressurizing steps again in another cycle. This would encompass the instant steps of softening by heating, pressing and changing the pressure of the fluid in a short cycle as set forth in instant claim 1. The number of cycles disclosed in Kobayashi would include at least two cycles of changing the pressure as required in instant claims 3-6. The heating medium is steam and the pressurizing medium is nitrogen (ie, an inert gas) as required by instant claims 10 and 11. Given that the cycles used in Kobayashi act to eliminate trapped air within the tire and between the tire and mold surfaces, it is submitted inherent that the cycles act to "beat" --or further press-- the tire against the mold as it is vulcanized. Also, within the first cycle, the pressurizing gas is fed after 2 minutes and in the second cycle, the gas is fed after 1 minute. It is submitted that this would include the aspect of the pressure being changed "in a short cycle".

Art Unit: 1732

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi, either alone, or further in view of Hugger (see col. 8, line 71 through col. 9, line 51).

The primary reference discloses the basic claimed process as set forth in paragraph 1, supra, lacking essentially the aspect of the cycle of the change in the pressure being of very short duration--ie, a decrease of short duration of one minute or less followed by an increase of similar short duration of one minute or less. This in essence reads on pulsing the pressure fluid. It is submitted that pulsing the pressure fluid in Kobayashi would have been an obvious feature to ensure that condensate does not accumulate in the tire or curing bladder and interfere with the on-going vulcanization. It is further noted that Hugger discloses pulsing steam into a curing bladder to maintain the desired pressure therein and to eliminate standing condensate. Based on the disclosure of Hugger, it would have been obvious to one of ordinary skill in the art to pulse the pressure fluid to ensure that condensate is not left stagnant. The exact amount of time between the pulses would have been within the skill level of the art and readily determined through routine experimentation as the curing cycle is optimized.

Art Unit: 1732

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Vargot whose telephone number is 703 308-2621.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

M. Vargot

September 25, 2003

*M. Vargot*  
MATHIEU D. VARGOT  
PRIMARY EXAMINER  
GROUP 1300

*10/15/03*